enzyme is not expressed, wherein said product comprises a galα(1,3) gal epitope reactive with an antibody that causes hyperacute rejection,

the improvement characterized in that the localization signal comprises a cytoplasmic tail of the different glycosyltransferase to localize the first glycosyltransferase at said cell compartment or organelle for said competition.

8. (TWICE AMENDED) The nuclei acid according to claim 1, wherein the localization signal is from the same cell type as the cell of claim 1.

9. (TWICE AMENDED) The nucleic acid according to claim 1, comprising a sequence encoding the catalytic domain of H transferase and a nucleic acid sequence encoding a localization signal from α(1,3)-galactosyltransferase that catalyses the production of a galα(1,3) gal epitope reactive with an antibody that causes hyperacute rejection.

17. (TWICE AMENDED) A method of producing the nucleic acid according to claim 1, comprising the step of operably linking a nucleic acid sequence encoding a catalytic domain from a first glycosyltransferase to a nucleic acid sequence encoding a localization signal of a different glycosyltransferase, said localization signal comprising a cytoplasmic tail of said different glycosyltransferase to localize the first glycosyltransferase at the same cell compartment or organelle in which the different glycosyltransferase is naturally present.

18. (TWICE AMENDED) A method of reducing an amount of a carbohydrate exhibited on a surface of a cell, said method comprising causing a nucleic acid to be expressed in said cell wherein said nucleic encodes a chimeric enzyme which comprises a catalytic domain of a first glycosyltransferase and a localization signal of a different glycosyltransferase, wherein expression of said nucleic acid in said cell results in localization of said chimeric enzyme by said localization signal in the same cell compartment or organelle in which the different glycosyltransferase is naturally present so as to allow competition for substrate between the first glycosyltransferase and the different glycosyltransferase so as to result in reduced levels of said carbohydrate from the different glycosyltransferase when compared with the level of said

carbohydrate in a cell wherein the chimeric enzyme is not expressed, wherein said carbohydrate comprises a galα(1,3) gal epitope reactive with an antibody that causes hyperacute rejection,

the improvement characterized in that the localization signal comprises a cytoplasmic tail of the different glycosyltransferase to localize the first glycosyltransferase at said cell compartment or organelle for said competition.

19. (TWICE AMENDED) A method of producing a cell from a donor species which is immunologically acceptable to a recipient species by reducing levels of carbohydrate on said cell, wherein said carbohydrate is capable of stimulating recognition of the cell as non-self by the recipient, said method comprising causing a nucleic acid to be expressed in said cell wherein said nucleic encodes a chimeric enzyme which comprises a catalytic domain of a first glycosyltransferase and a localization signal of a different glycosyltransferase, wherein expression of said nucleic acid in said cell results in localization of said chimeric enzyme by said localization signal in the same cell compartment or organelle in which the different glycosyltransferase is naturally present so as to allow competition for substrate between the first glycosyltransferase and the different glycosyltransferase so as to result in reduced levels of said carbohydrate from the different glycosyltransferase when compared with the level of said carbohydrate in a cell wherein the chimeric enzyme is not expressed, wherein said carbohydrate comprises a galα(1,3) gal epitope reactive with an antibody that causes hyperacute rejection,

the improvement characterized in that the localization signal comprises a cytoplasmic tail of the different glycosyltransferase to localize the first glycosyltransferase at said cell compartment or organelle for said competition.

22. (AMENDED) Isolated cells comprising the nucleic acid according to claim 1.

23. (TWICE AMENDED) An expression unit that expresses a nucleic acid according to claim 1 in a cell resulting in reduced levels of a carbohydrate on its surface, which carbohydrate comprises a galα(1,3) gal epitope reactive with an antibody that causes hyperacute rejection.

24. (TWICE AMENDED) A retroviral construct or retroviral producer cell comprising the expression unit according to claim 23.

26. (AMENDED) A nucleic acid encoding a chimeric enzyme, wherein said enzyme comprises

a catalytic domain of a first glycosyltransferase or a carbohydrate modifying enzyme, and

a localization signal of a different glycosyltransferase, said localization signal comprising a cytoplasmic tail of said different glycosyltransferase,

wherein expression of said nucleic acid in a cell results in localization of said chimeric enzyme by said localization signal in the same cell compartment or organelle in which the different glycosyltransferase is naturally present so as to allow competition for substrate between the first glycosyltransferase or the carbohydrate modifying enzyme and the different glycosyltransferase so as to result in reduced levels of a product from the different glycosyltransferase when compared with the level of said product in a cell wherein the chimeric enzyme is not expressed, wherein said product comprises a gal α(1,3) gal epitope reactive with an antibody that causes hyperacute rejection,

the improvement characterized in that the localization signal comprises a cytoplasmic tail of the different glycosyltransferase to localize the first glycosyltransferase or the carbohydrate modifying enzyme at said cell compartment or organelle for said competition.

28. (AMENDED) A nucleic acid encoding a chimeric enzyme, wherein said chimeric enzyme comprises a catalytic domain of a fucosyltransferase and a localization signal from α(1,3) galactosyltransferase wherein expression of said nucleic acid in a cell results in localization of said chimeric enzyme in the same cell compartment or organelle in which α(1,3) galactosyltransferase is naturally present so as to allow competition for substrate between the fucosyltransferase and the α(1,3) galactosyltransferase so as to result in reduced levels of a product from the α(1,3) galactosyltransferase when compared with the level of said product in a cell wherein the chimeric enzyme is not expressed, wherein said product comprises a galα(1,3) gal epitope reactive with an antibody that causes hyperacute rejection.

29. (AMENDED) A nucleic acid encoding a chimeric enzyme, wherein said chimeric enzyme comprises a catalytic domain of a first glycosyltransferase and a localization signal of a different glycosyltransferase, wherein expression of said nucleic acid in a cell results in localization of said chimeric enzyme by the localization signal in a trans Golgi cell compartment in which said different glycosyltransferase is naturally present so as to allow competition for substrate between the first glycosyltransferase and the different glycosyltransferase so as to result in reduced levels of a product from said different glycosyltransferase when compared with the level of said product in a cell wherein the chimeric enzyme is not expressed, wherein said product comprises a galα(1,3) gal epitope reactive with an antibody that causes hyperacute rejection,

the improvement characterized in that the localization signal comprises a cytoplasmic tail of the different glycosyltransferase to localize the first glycosyltransferase at said trans Golgi cell compartment for said competition.

30. (NEW) The nucleic acid according to claim 1, wherein the localization signal encoded by the nucleic acid is the NH_2 terminal cytoplasmic tail of GT and the catalytic domain encoded by the nucleic acid is the transmembrane, stem and catalytic domains of H transferase.

31. (NEW) A nucleic acid according to claim 1, wherein the localization signal is selected from the group consisting of MNVKGR (SEQ. ID. No. 11), MNVKGK (SEQ. ID. No. 12) and MVVKGK (SEQ. ID. No. 13).

32. (NEW) The nucleic acid according to claim 1, wherein the first and the different glycosyltransferase are each selected from a galactosyltransferase or a fucosyltransferase.

33. (NEW) The method according to claim 18, wherein the first and the different glycosyltransferase are each selected from a galactosyltransferase or a fucosyltransferase.

34. (NEW) The method according to claim 19, wherein the first and the different glycosyltransferase are each selected from a galactosyltransferase or a fucosyltransferase.

35. (NEW) The nucleic acid according to claim 29, wherein the first and the different glycosyltransferase are each selected from a galactosyltransferase or a fucosyltransferase.